

3 (b) a monolithic compensator in accordance with a specified one of claims 11, 12, 13,
4 14, 15, 16, 17, 18, 19, and 20 operatively coupled to said optically transparent
5 substrate. --

1 -- 18. (New) The compensator element of claim 17, wherein said monolithic compensator is
2 operatively coupled to said optically transparent substrate via a layer of adhesive. --

1 -- ^{6.}~~19.~~ (New) The compensator element of claim ⁵~~17~~, wherein said optically transparent substrate
2 is an optical polarizer. --

1 -- ^{7.}~~20.~~ (New) The compensator element of claim ⁵~~17~~, wherein said optically transparent substrate
2 is one surface of a liquid crystal cell. --

REMARKS

Claims 8 and 11 through 20 are currently pending in this application. Claims 1 through 7, 9, and 10 have been canceled without prejudice to their underlying subject matter. Amendment to claim 8 and new claims 11 through 20 are presented above. Reconsideration of the pending claims in light of the above amendments and the following remarks is requested.

Remarks Concerning Amendment of Specification

The two pages preceding numbered page one of the specification have been deleted by amendment. It is noted that the first deleted page is a Title Page and the second deleted page is a Table of Contents. Both the Title Page and the Table of Contents were provided solely for the

purpose of aiding the Examiner in review of the invention and were not intended to be part of the formal patent disclosure document.

Remarks Concerning Claim Amendments

Claims 1 through 7, 9, and 10 have been canceled in favor of new claims 11 through 20. New claims 11 through 20 specify that a monolithic compensator in accordance with the invention comprises a plurality of compensator layers formed one-on-top of the other, and not individual compensator plates that are performed and then stacked. (See in the Office Action Examiner's comments on page 5.)

In particular, new claim 11 is directed to a monolithic compensator comprising two compensator films, one deposited directly onto the other. New claim 12 is directed to a monolithic compensator having one or more additional layers deposited in between the first and second compensator layers of claim 11. Dependent claims 13 through 16 are directed at refinements of either claim 11 or claim 12. New claims 17 through 20 are directed to a compensator element for a liquid crystal display comprising a monolithic in accordance with one of claims 11 through 16. Claim 8 is directed to a liquid crystal display comprising a monolithic compensator in accordance with any one of claims 11, 12, 13, 14, 15, 16, 17, 18, 19, and 20.

Remarks Concerning Objections

Claims 2 and 7 through 10 were objected to by the Examiner. Specifically, the Examiner alleges that the referenced claims are improper because "particular elements are indicated by the claim in which it is first recited. This is not dependency per se, rather it is description. This description is improper." (In the Office Action see pages 3 and 4.)

Claims 2 through 7 and 10 have been canceled in favor of new claims 11 through 20. Claim 8 and new claim 17 use the format objected to by the Examiner.

Claim 8 and new claim 17 take advantage of an applicant's right to act as his or her own lexicographer: it identifies specific methods by reference to specific claims. This form of claim

language was held proper by the Board of Patent Appeals and Interferences in *Ex parte Moelands*, 3 U.S.P.Q.2d (BNA) 1474 (1987). *Moelands* reversed rejections under 35 U.S.C. § 112, second and fourth paragraphs, of claims including the following:

11. A data transmission system comprising:
at least two of the data transmission stations of claim 10;
a clock bus interconnecting the clock terminals of the stations; and
means which maintain the clock bus at the second voltage level in the
absence of forcing by the stations.

3 U.S.P.Q.2d (BNA) at 1475 (emphasis added). Thus, claims 8 and 17 are proper under the *Moelands* holding.

Claims 8 and 17 are likewise proper under the more recent decision *In re Porter*, 25 U.S.P.Q.2d (BNA) 1144, 1147 (PTO Bd. App. & Interf. 1992) (holding by expanded Board panel, reversing rejection as allegedly ambiguous and nonstatutory of claim directed to method that recited the step of "utilizing the nozzle of claim 7"). In *Porter*, the Board reversed the examiner's rejection of a "hybrid" claim 6, directed to a method that included the step of operating a nozzle in accordance with claim 7. The expanded panel noted that claim 6's incorporation of all of claim 7 was simply a form shorthand; it held that claim 6 was neither ambiguous nor nonstatutory. 25 U.S.P.Q.2d (BNA) at 1147. The *Porter* holding overcomes the Examiner's assertion that the hybrid nature of claim 8 (and new claim 17) here is a ground for rejection.

Remarks Concerning 35 U.S.C. § 103 Rejections

Rejection Over Haas. Claims 1 through 5 and 7 through 9 were rejected under 35 U.S.C. § 103 as allegedly being obvious in view of Haas (U.S. Patent 5,375,006). In particular, the Examiner asserts that "Haas teaches a positive birefringent O-plate compensator and a positive birefringent A-plate compensator ... [T]he [claim] limitations of 'monolithic' and 'deposited' are, in part, process limitations. (Monolithic provides the structural limitation that

the compensator layers are on top of each other ... Since the compensators could, for example, be either pre-formed or not pre-formed and then glued or bonded to a substrate, one of ordinary skill could not necessarily determine from the product if a compensator layer was pre-formed.” (In the Office Action see pages 4-5.)

Haas appears to describe the use of a “compensating plate whose optical axis shows a slight inclination with respect to the normal to the faces that bound the layer of liquid crystal.” (In Haas see col. 1, lines 44-46.) In one embodiment, “the compensating means 11 take the form of a uniaxial medium with negative birefringence, the optical axis OA of which is in the plane XZ and forms an angle (β) of 75° to 90° .” (In Haas, see col. 3, lines 48-52, and Fig. 5a.) It is noted that in the coordinate system of the instant invention a β of between 75 and 90 degrees equates to a tilt angle of between 10 to 15 degrees. (In the specification see Fig. 1, θ element 120. In another embodiment, Haas describes how to obtain a β angle of between 75 and 90 degrees by “using two juxtaposed compensating elements.” (In Haas see col. 4, lines 21-32, and Fig. 6a.)

The term monolithic and deposited are believed to be clearly defined in the specification of the present application. For example, page 15, lines 3 through 7, read:

A monolithic O-plate optical compensator device, in accordance with the invention, comprises a plurality of thin-film compensation layers which are deposited on a single substrate. As used herein, the term “**monolithic**” is meant to imply that the O-plate and other thin-film compensator layers are formed by **depositing** (e.g., via solvent casting or vacuum deposition) one layer on top of another layer; with or without the use of surface modification treatments such as **adhesion layers**, alignment layers, and the like. (Emphasis added.)

The Examiner’s assertion that “one of ordinary skill could not necessarily determine from the product if a compensator layer was pre-formed” is believed to be incorrect. If a compensator were to be formed by a plurality of pre-formed compensator layers then, by definition, the pre-formed layers would have to be laminated or glued to form a monolithic-like structure. It is

believed that those of ordinary skill in the art of liquid crystal display design could easily distinguish a monolithic compensator formed in accordance with the invention (i.e., via a plurality of **deposited** compensator layers) from a structure formed by gluing a series of compensator films together. The distinction would be apparent from the structure of the compensator **independent of the process used to make the structure**. In other words, the glue used to bind/laminate the pre-formed compensator elements would clearly be distinguishable from compensator layers **deposited** one on top of the other (with or without the use of intermediary deposited layers). An important distinction is believed to be the difference between an "adhesion layer" that is formed via a deposition process, and an adhesive such as glue used during a lamination process.

However, to circumvent any possible confusion, new claims 11 through 20 make it explicit that a monolithic compensator in accordance with the invention comprises a plurality of compensator layers formed one-on-top of the other, and not individual compensator plates that are performed and then stacked.

Rejection Over Haas and Penz et al. Claims 6 and 10 were rejected under 35 U.S.C. § 103 as allegedly being obvious in view of Haas (U.S. Patent 5,375,006) as applied to claims 1 through 5 and 7 through 9, and further in view of Penz et al. (U.S. Patent 4,533,214). In particular, the Examiner asserts that "[i]t would have been obvious ... to substitute the combined polarizer and substrate of Penz for the polarizer of Haas and to eliminate the substrate of Haas to reduce the thickness and the cost of the device." (In the Office Action see page 6.)

The deficiencies of the Haas reference are discussed above. Penz et al. is not seen as remedying those deficiencies. Penz et al. is believed to describe "a liquid crystal display having as a substrate a plastic material possessing biaxial optical properties." (In Penz et al. see col. 1, lines 49-51.)

Neither Haas or Penz et al. are believed to describe or suggest a monolithic compensator comprising a plurality of compensator elements formed one on top of the other as discussed above. New claims 11 through 20, and amended claim 8, are believed to recite a multilayer

compensator in accordance with the invention that is distinct from a combination of performed compensator layers that have been assembled together.


In light of the above amendments and remarks, the Assignee submits that the alleged section 103 rejections have been overcome and respectfully requests these rejections be withdrawn.

CONCLUSION

Reconsideration and allowance of the pending claims is respectfully requested.

Respectfully submitted,

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